

**SARDAR PATEL UNIVERSITY**  
**Programme: BBA(Information Systems Management)**  
**Semester: I**  
**Syllabus with effect from: JUNE 2011**

<b>Paper Code:</b> UM01CBBS02	<b>Total Credit: 3</b>
<b>Title Of Paper:</b> Logical Organization of Computer	

Unit	Description in detail	Weighting (%)
<b>1</b>	<b>Introduction</b> Block diagram of a simple computer and its different functional units. Representation of information. <ul style="list-style-type: none"> <li>• Introduction to number system(B,O,H,D) ,conversions(B,O,H,D)</li> <li>• Arithmetic (add, sub B), radix 1, complement, radix complement method.</li> <li>• Character codes, (ASCII ,EBCDIC)</li> </ul> Representation of numbers <ul style="list-style-type: none"> <li>• Signed magnitude, 1's complement, 2's complement, excess notations</li> </ul> Error detection and correction codes	<b>25 %</b>
<b>2</b>	<b>Gates And Boolean algebra</b> Logical gates AND,OR,NOT,NAND,NOR,X-OR Truth table and simplification. Boolean algebra, De-Morgan's theorems. Reduction of Boolean algebra. Karnaugh Map up to 3 variables. Karnaugh Map simplification.	<b>25 %</b>
<b>3</b>	<b>Microcomputer And Structure Of CPU</b> Introduction to Microcomputer. Processor Functions And Components, Instruction Execution Cycle CPU organization <ul style="list-style-type: none"> <li>• The data path of a typical von-neuman machine parallel</li> <li>• Instruction execution: categories of parallel machines, Array processors, Multifunctional units, pipeline machines, multiprocessors.</li> </ul>	<b>25 %</b>
<b>4</b>	<b>Input Output Devices</b> Memory Systems Of microcomputers ROM, RAM, PROM, EROM, Static And Dynamic RAM Floppy disk, Hard Disc,CD ROM Overview of input output devices Keyboard, Mouse, OCR, Scanner, Plotters, Printers, Graphics Display Devices	<b>25 %</b>

**Basic Text & Reference Books**

- Introduction to computer by Peter Norton.
- Computer Fundamentals by P.K Sinha.
- Computer Fundamentals by V. Rajaraman.
- Structure computer organization by A S Tanenbaum

